

Amendments to the Specification

The following will replace the respective paragraph(s) of the Specification:

[0029] Fig. 17 is a flow diagram illustrating an exemplary process of creating a multidimensional interconnected dice structure. Fig. 18 is a top view of a plurality of semiconductor dice attached within a large substrate pocket of a cavity substrate. Fig. 19 is a cross section view taken along line 19—19 of Fig. 18.

[0031] Figs. 1-5A, 6 and 7 depict a plurality of semiconductor dice 10 and 20 at various times during an exemplary fabrication process. In particular, Fig. 1 is a cross section view of a plurality of semiconductor dice 10 and 20. The dice 10 and 20 are typically semiconductor dice resulting from the singulation of a semiconductor wafer, and have a thickness of t_0 between 12 and 30 mils which corresponds to the full thickness of the semiconductor wafer. Retaining the die thickness t_0 above 12 mils for the semiconductor dice 10 and 20 helps to reduce breakage of the semiconductor dice 10 and 20 during handling steps. These dice 10 and 20 plus others are arrayed on a coefficient of thermal expansion (CTE) matched substrate which is typically a silicon cavity wafer with the appropriate pocket depth to match the thickness of die 10 and 20. These die placements are done automatically with a pick and place unit equipped with a pattern recognition system so that the die are placed with an accuracy of better than 10 microns and bonded to the substrate. Fig. 18 is a top view of a plurality of semiconductor dice 10, 20, attached within a large substrate pocket 31 of a cavity substrate 30 (pocket 31 having perimeter depicted generally at perimeter 33). Fig. 19 is a cross section view taken along line 19—19 of Fig. 18.

[0059] Fig. 6 as shown is not to scale; the thickness of the semiconductor dice 10 and 20 and the thickness of the flexible member 40 have been exaggerated to illustrate relevant detail. Figure 7, is a cross section view of the semiconductor dice 10 and 20 after the flexible member 40 has been folded to form a stacked plurality of semiconductor dice. An adhesive 82, which may be thermally conductive, may be used to bond the bottom surface 24 of the semiconductor die 20 to the bottom surface 14 of the semiconductor die 10 or a heat spreader could be inserted to allow better cooling of the integrated circuit assembly.